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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,629	12/28/2000	Yuanlong Wang	00CXT0785N	7116

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DUFT SETTER OLLILA & BORNSSEN LLC  
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SUITE 300  
BOULDER, CO 80302

EXAMINER

HUYNH, KIM T

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/750,629

Applicant(s)

WANG ET AL.

Examiner

Kim T. Huynh

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Aybay (US Patent 6,185,221)

a. As per claim 1, Aybay discloses communication circuitry comprising:

- parallel channels (col.2, lines 1-5) configured to transfer communications in parallel with a clock signal; (col.8, lines 5-21), (col.5, lines 66-67), (col.6, lines 8-11)
- processing circuitry configured to exchange the communications between communication links (col.10, lines 56-64) and the parallel channels; and (col.3, lines 29-36), (col.7, lines 38-45)
- crossbar (fig.5, 60) integrated circuits configured to receive the communications and the clock signal over the parallel channels, switch the communications based on the clock signal, and transfer the switched communications to the parallel channels. (col.8, lines 5-21), (col.5, lines 66-67), (col.6, lines 8-11)

b. As per claim 11, Aybay discloses the method operating communication circuitry, the method comprising:

- exchanging communications between communication links and processing circuitry; (col.7, lines 38-45)
- exchanging the communications and a clock signal (col.6, lines 8-11) between the processing circuitry and parallel channels; (col.2, lines 1-5), (col.8, lines 5-21)
- transferring the communications in parallel with the clock signal over the parallel channels; (col.3, lines 29-36)
- receiving the communications and the clock signal from the parallel channels into crossbar integrated circuits; (col.6, lines 8-11)
- switching the communications in the crossbar integrated circuits based on the clock signal, and (col.8, lines 5-21)
- transferring the switched communications from the crossbar integrated circuits to the parallel channels. (fig.5), (col.7, lines 14-18)

c. As per claims 2, 12, Aybay discloses the parallel channels are each comprised of parallel differential signal pairs (col.7, lines 34) wherein one of the differential signal pairs is for the clock signal. (col.5, lines 66-67)

d. As per claim 3, Aybay discloses the communication links comprise serial channels. (col.1, lines 35-40)

e. As per claims 4, 14, Aybay discloses the communications comprise data packets. (fig.6, 150), (col.6, lines 42-45)

- f. As per claims 5, 15, Aybay discloses the communications comprise fixed-length data packets. (col.7, lines 57-64)
- g. As per claims 6, 16, Aybay discloses the communication circuitry comprises a switch fabric. (col.7, lines 38-42)
- h. As per claims 7, 17, Aybay discloses the processing circuitry is comprised of virtual output queues that store the communications prior to switching and that are associated with egress ports. (col.10, lines 53-64), (col.8, lines 41-57)
- i. As per claims 8, 18, Aybay discloses the processing circuitry is comprised of virtual output queues that store the communications prior to switching and wherein each virtual output queue (fig.8, 42) is comprised of sub-queues (fig.8, 132) that are each associated with a different priority. (col.8, lines 50-60)
- j. As per claims 9, 19, Aybay discloses the processing circuitry is comprised of a multi-cast virtual output queue that stores the communications prior to switching for multi-cast output. (col.2, lines 1-5), (col.1, lines 57-67)
- k. As per claims 10, 20, Aybay discloses the parallel channels include multiplexers (fig.8, 130) to perform bit slicing through the crossbar integrated circuits. (col.10, lines 34-36)
- l. As per claim 13, Aybay discloses exchanging the communications between the communication links and the processing circuitry comprises exchanging the communications between serial channels and the processing circuitry. (col.1, lines 26-40)

### **Conclusion**

3. A shortened statutory period for reply is set to expire *THREE* months from the mailing date of this communication. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after *SIX* (6) months from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If no period for reply is specified above, the maximum statutory period will apply and will expire *SIX* (6) months from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become *ABANDONED* (35 U.S.C 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (703)305-5384 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 8:30AM- 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815 or via e-mail addressed to [mark.rinehart@uspto.gov]. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7249 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5631.

Kim Huynh

May 31, 2003

  
RURAL DHARJA  
PRIMARY EXAMINER